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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------|----------------------|
| 09/768,072 | 01/23/2001 | Liam B. Quinn | M-9137 US | 2497 |
| 7590 | 03/20/2006 | | EXAMINER [REDACTED] | PAN, YUWEN |
| David L. Combs Haynes and Boone, LLP 901 Main Street Suite 3100 Dallas, TX 75202-3789 | | | ART UNIT [REDACTED] | PAPER NUMBER 2682 |

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/768,072 | QUINN ET AL. | |
| | Examiner | Art Unit | |
| | Yuwen Pan | 2682 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 17 February 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-5,8-13,15,17 and 19-21 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-5,8-13,15,17 and 19-21 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____ . |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/17/06 has been entered.

Response to Arguments

2. Applicant's arguments filed 2/17/06 have been fully considered but they are not persuasive.

The applicant argues that newly added limitation "a connector connecting an antenna system to the switch for communicating with the one or more transceivers, whereby power related switching is controlled between the one or more transceivers and the antenna system", is not taught by the prior art of record. The examiner respectfully disagrees because Vaisanen clearly teaches a connector (figure 1, item PA1) connecting an antenna system (item ANT1) to the switching for communicating with the transceiver WLAN (item 11), whereby power related switching is controlled between the one or more transceivers and the antenna system (see column 9 and lines 36-44). Therefore, the prior of record still reads on the newly amended claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 4, 8-13, 15, 17, 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaisanen et al (US006560443B1) in view of Yamazaki et al (US005884189A).

Per claims 1 and 15, Vaisanen discloses a portable computing system with selectable transceiver switching (see column 1 and line 8-14) comprising: a set of one or more transceivers, each of the transceivers with a unique communication protocol (see column 3 and line 61-column 4 and line 29), a switch capable of differentiating communication signals and determining and choosing an appropriate transceiver from the set of transceivers to communicate for the computing system (see figure 1, column 6 and lines 36-53); multi-band antenna capable of receiving and transmitting varying frequency signals to the chosen transceiver (see column 6 and lines 54-65), an antenna sharing switching circuitry for multi-transceiver mobile terminal in which is on the same ISM radio band but having different power/range requirements (see column 3 and lines 47-60), a connector (figure 1, item PA1) connecting an antenna system (item ANT1) to the switching for communicating with the transceiver WLAN (item 11), whereby power related switching is controlled between the one or more transceivers and the antenna system (see column 9 and lines 36-44).

Vaisanen doesn't explicitly teach that the switch interfacing with a system stack including an application stack, a protocol stack, a client middle-ware stack and a software driver stack, the interface being at the software driver stack for controlling the interface to multiple types of the transceivers via an operating system. Yamazaki teaches that software is installed in the control unit for controlling the wireless transceiver (column 2 and lines 25-28), the software controlled unit responds for adapting to different communication protocols such as cellular,

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cordless and PCS (see column 29-32, column 3 and line 52-column 4 and line 30). It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of Yamazaki such that it is fast and easy to regular switching function between two transceivers.

Per claim 2 and 4, Vaisanen doesn't disclose that the switch is a zener diode or a current limiter device that differentiates upon power transmission. The examiner takes "Office Notice" that it is notoriously well-known in the art to utilize a zener diode as a switch, in order to activate or deactivate a transmit mode. Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to utilize a zener diode as a switch such that a transmit mode would be selected or deselected based on the input voltage.

Per claims 8-10, and 17, 20, 21 Yamazaki further teaches that selection of a transceiver is performed by a software driver with a higher level protocol stack and the software driver is instructed by a set of software application of the portable computer system (column 3 and line 52-column 4 and line 30).

Per claim 11, Vaisanen further discloses the set of transceiver and the switch are integrated into a circuit card (see figure 4 and column 8 and lines 38-60).

Per claim 19, Vaisanen further discloses that the portable computing system is in a casing and then antenna is integrated into the casing (see column 6 and lines 35-53).

Per claims 12 and 13, Vaisanen further discloses the circuit card connects to a system board of the portable computer system and the circuit card is a mini PCI card (see column 5 and lines 35-55).

5. Claims 3, 5-7, are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaisanen et al (US006560443B1) and Yamazaki et al (US005884189A) as applied to claim 1 above, and further in view of Dvorkin et al (US006249686B1).

Per claim 3, combination of Vaisanen and Yamazak doesn't teach an active power sensor device. Dvorkin discloses an active power sensor device (see figure 1 and item 78, column 2 and lines 33-47). It would have been obvious to one ordinary skill in the art at the time the invention was made to enclose the active power sensor device such that adequate signal strength would be implemented for either receiving or transmitting.

Per claims 5-7, Dvorkin further discloses a lookup table that associates transmission power with each of the transceivers, whereby the switch selects a transceiver from the set of transceivers when a certain power state in the lookup table is detected and the switch selects a transceiver based on a transmitted or received power (see column 2 and lines 1-47).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lane et al (U.S. Patent No. 6,978,121) discloses method and apparatus for operating a dual-mode radio in a wireless communication system.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuwen Pan whose telephone number is 571-272-7855. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anderson D. Matthew can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Yuwen Pan
March 14, 2006


Matthew Anderson
SPE 2618